REMARKS

Applicants have studied the FINAL Office Action dated March 4, 2004. It is submitted that the application, as previously presented, is in condition for allowance. Claims 10-23 are currently pending. Reconsideration and allowance of the pending claims in view of the following remarks is respectfully requested.

Initially, Applicant notes that the Attorney Docket No. shown on the Office Action incorrectly states "47103-200". The actual Attorney Docket No. is 724-X00-003. Proper correction in the Patent Office records is requested.

Applicant respectfully submits that the action has improperly been declared a Final Office action. MPEP § 706.07(a) states that a "second or any subsequent actions on the merits shall be final, **except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement...**"

The Examiner states in Item 1 on page 2 of the above-identified Office action, that **Applicant's Admitted Prior Art (AAPA) does not teach** "wherein the processing means identify at least one data signal from the plurality of data signals conforming to a predetermined criteria and... a multiplexing unit for selective processing of the at least one data signal from the plurality of data signals" **and cites for the first time to Kozma et al. as the grounds for rejection of claims 10-23.** However, the claims, as originally filed, contained all the limitations Kozma et al. is supposed to anticipate, according to the Examiner's rejections. Since this new ground of rejection (Kozma et al.) was not

necessitate by Applicant's amendment, it is therefore submitted that the above-referenced Office action should be classified as non-final pursuant to MPEP § 706.07(a).

In the Final Office Action, the Examiner rejected claims 10-23 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Kozma et al. (U.S. Pat. No. 4,063,226).

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 10 recites, *inter alia*:

> ... processing means comprising a photodiode array processing unit arranged **to identify at least one data signal from the plurality of data signals conforming to a predetermined criteria** and transmit an identifying signal corresponding to the identified at least one data signal to a **multiplexing unit for selective processing of the at least one data signal from the plurality of data signals.** (Emphasis added).

The Examiner states in Item 1 on page 2 of the above-identified Office action, that AAPA does not teach "wherein the processing means identify at least one data signal from the plurality of data signals conforming to a predetermined criteria and... a multiplexing unit for selective processing of the at least one data signal from the plurality of data signals."

The specification of the instant application describes an information filtering apparatus for identifying a peak intensity of a small spatial distribution. In the present invention, a laser generates a beam of coherent light which is modulated by acoustic waves to

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produce a spatially modulated light 107. The spatially modulated light propagates through a lens that focuses on a photodiode array 200, which converts the photonic energy into electrical energy. As can be seen in FIG. 3, the output of the photodiodes 200 is transmitted to the input terminals of an input-stage buffer 306. The signal is then amplified to produce a pre-amplified signal. Next, the multiplexer 208 samples the pre-amplified signal while a comparator 326 serves to identify a small spatial distribution 119 between the pre-amplified output signals of the photodiodes. The digital logic unit 346 then executes a combinatorial and logical process on the electrical signals received at the first, second and Nth input terminals in conjunction with any data received on the external control bus 348 corresponding to a user's preferences relating to analysis of the RF input signal 116. ("...processing means comprising a photodiode array processing unit..." –Claim 10).

The digital logic unit 346 is arranged to identify, for instance, the central and therefore the largest of these voltage impulses ("...identify at least one data signal from the plurality of data signals conforming to a predetermined criteria..." –Claim 10).

The process executed by the digital logic unit 346 results in the identification of the pre-amplified signals of interest to the user in the form of output data transferred to the analog multiplexer 208 via the data bus 244 ("...and transmit an identifying signal corresponding to the identified at least one data signal to a multiplexing unit..." –Claim 10)

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The multiplexer, **based on the output data received from the digital logic unit 346,** then **samples and multiplexes the pre-amplified signals corresponding to the photodiodes of interest** (...for selective processing of the at least one data signal from the plurality of data signals. —Claim 10) at the full bandwidth of the pre-amplified signals. The multiplexed pre-amplified signals of interest are then switched through to the output buffer unit 222 which is coupled to output pins of an integrated circuit.

The Kozma et al. reference discloses a non-analogous holographic information storage system. In Kozma et al., Fourier holograms containing 128 bits of data are recorded on film in rapid succession for later readout. The Kozma system comprises an acousto-optic block data composer that modulates a light beam simultaneously with 128 data bits, an optical system for producing a succession of holograms, each of which includes 128 data bits, an addressing system including a spinning polygonal scanning mirror for recording and reading successive holograms at different locations on a film and a detector for reading out simultaneously the 128 data bits of each hologram. Therefore, the data in Kozma et al. is simply received and transferred to the holographic medium. Clearly, Kozma et al. does not show a processing unit arranged to identify at least one data signal from the plurality of data signals conforming to a predetermined criteria as recited in claim 10 of the instant application.

Nor does Kozma et al. show transmitting an identifying signal corresponding to the identified at least one data signal to a multiplexing unit for selective processing of the at least one data signal from the plurality of data signals. In Kozma et al., the unit referred to as a "multiplexing unit" (170), is simply a shift register that removes the data from the

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groups of 128 bits and placing them into a serial output data stream. It does not identify any particular piece of data corresponding to any other piece of data.

It is accordingly believed to be clear that Kozma et al., whether taken alone or in any combination with AAPA, neither shows nor suggests the features of claims 10 or 22. Claims 10 and 22 are, therefore, believed to be patentable over the art. Since dependent claims contain all the limitations of the independent claims, the dependent claims are believed to be patentable as well and the Examiner's rejection should be withdrawn.

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CONCLUSION

The remaining cited references have been reviewed and are not believed to affect the patentability of the claims.

Applicant acknowledges the continuing duty of candor and good faith to disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §1.56, all such information is dutifully made of record.

Applicant respectfully submits that all of the grounds for rejection stated in the Examiner's Office Action have been overcome, and that all claims in the application are allowable. It is believed that the application is in condition for allowance, which allowance is respectfully requested.

It is believed that no fee is due with this Amendment. However, if any fees are due with respect to Sections 1.16 or 1.17, please charge to the deposit account of the undersigned firm, Acct. No. 500601.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

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Respectfully submitted,

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